DEPARTMENT OF DEVELOPMENTAL SERVICES
NORTH REGION
INVITATION TO BID

- PROJECT # and PROJECT TITLE:
  DDS-9018 Woodbridge Boiler Replacement

- MANDATORY PRE-BID MEETING TO BE HELD ON:
  Wednesday, March 25, 2009
  Must call 860-263-2550 to pre-register for site visit

- PRE-BID MEETING TO BE HELD AT:
  Woodbridge Group Home
  10 Woodbridge Ave
  East Hartford, CT 06108

- REQUESTS FOR CLARIFICATION AND QUESTIONS CONCERNING SCOPE OF WORK ARE DUE TO THE BUSINESS OFFICE REPRESENTATIVE (EMAIL) BY:
  Tuesday, April 14, 2009 by 1:00 PM

- PRODUCT APPROVED EQUALS - SPECIFICATIONS AND SAMPLES MUST BE SUBMITTED TO THE BUSINESS OFFICE REPRESENTATIVE BY:
  Thursday, April 2, 2009 by 1:00 PM
- CLARIFICATION AND ANSWERS TO QUESTIONS WILL BE POSTED ON THE DAS WEB PORTAL BY: **Friday, April 17, 2009 by 4:00 PM**

- BID OPENING DATE AND TIME: **Tuesday, April 28, 2009 at 2:00 PM**

- DDS FACILITY REPRESENTATIVE:
  John Massicotte, PFE
  Ph: 860-263-2486
- DDS BUSINESS OFFICE REPRESENTATIVE:
  Tina Jordan
  155 Founders Plaza
  255 Pitkin Street
  East Hartford, CT 06108
  Ph: 860-263-2550, Fax: 860-263-2525
  Email: tina.jordan@ct.gov

All bids will be received at the date, time, and place (Business Office) specified and thereafter publicly opened and read aloud. The Department of Developmental Services is an Equal Employment/Affirmative Action Organization and will not knowingly do business with an organization/contractor that is or has been found to discriminate.

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BIDDING REQUIREMENTS - INSTRUCTIONS TO BIDDERS

Failure to <u>complete</u> and submit any of the required forms, documents, or information may result in rejection of your bid. Should this occur, your bid will be deemed non-responsive and it will be disqualified. DDS reserves the right to not award this contract in whole or in part. Conditional bids will be disqualified. A conditional bid is defined as one limiting or modifying any of the terms and conditions and/or specifications.

Forms REQUIRED to be submitted WITH <u>all bids</u>

- BID FORM ((2 pages, (attached))
- PRE-BID REPRESENTATIVE FORM ((1 page, attached))
- EXPERIENCE, REFERENCES, & SUB-CONTRACTORS FORM ((1 page, attached))

Required bond or check to be submitted WITH <u>bids equal to or greater than $10,000</u>

- BID BOND OR CHECK per section IB. 1.11

Additional form required to be submitted WITH <u>all bids equal to or greater than $100,000</u>

- CONTRACTORS WAGE CERTIFICATION FORM (Dept. of Labor prevailing wage requirements) per section IB 1.10 ((1 page, attached))

The following forms / documents are required to be submitted after bid opening, by lowest bidder only, before Purchase Order can be issued. These forms must be submitted along with your bid, or, within 5 business days of being informed you are the lowest bidder. If not received within 5 business days, your bid may be deemed non-responsive and may be disqualified. <u>It is strongly encouraged to submit these forms / documents, along with your bid</u>, to administratively accelerate the issuance of a Purchase Order.

- BIDDER CONTRACT COMPLIANCE MONITORING REPORT ((2 pages, attached))
- PROOF OF INSURANCE per section IB. 1.12
- PROOF OF REQUIRED CERTIFICATIONS AND TRADE LICIENCES
- GIFT AND CAMPAIGN CONTRIBUTION CERTIFICATION ((1 page, attached)) (Required if this bid exceeds $50,000, or, if this bid causes the sum total of your previous contracts with DDS, in a calendar or fiscal year, to exceed $50,000).
- PERFORMANCE, LABOR, & MATERIAL BONDS (Required for projects equal to or greater than $50,000) (Note: this form not required or suggested to be submitted with bid, but is required before issuance of PO).

BID FORM (page 1 of 2)

TO: Tina Jordan
DDS - North Region
155 Founders Plaza
255 Pitkin Street
East Hartford, CT 06108

FOR: Project #: DDS - 9018
Project Title: Woodbridge Boiler Replacement Project
Location: 10 Woodbridge Ave, East Hartford, CT

FROM: (Company Name) _____

In compliance with the Instruction to Bidders & Conditions of Bid (section I.B. 1.09), and subject to all conditions thereof, the undersigned offers and agrees to furnish all labor and materials and to complete work called for by the project's technical specifications within the allotted time of **(90) calendar days** for the Lump Sum of:

BASE BID: Complete Job
WORDS_____

DOLLAR Figures: ($_____).

Note: All prices shall remain valid for ninety (90) calendar days.

BID FORM (page 2 of 2)

The General Contractor on this project will be required to perform not less than **(50%)** of the completed dollar value of the work with its own forces.

I (we), the undersigned, hereby declare that I am (we are) the only person(s) interested in this bid: That it is made without any connection with any other person making any bid for the same work: that no person acting for, or employed by, the State of Connecticut is directly or indirectly interested in this bid, or in any contract which may be made under it, or in expected profits to arise there from; that this bid is made without directly or indirectly influencing or attempting to influence any other person or corporation to bid or to refrain from bidding or to influence the amount of the bid of any other person or corporation: that this bid is made in good faith without collusion or connection with any other person bidding for the same work; and that this bid is made with distinct reference and relation to the plans and specifications prepared for this contract.

I (we) further declare that in regard to the conditions affecting the work to be done and the labor and materials needed, this bid is based solely on my (our) own investigation and research and not in reliance upon any representations of any employee, officer or agent of the State.

I have carefully read, understand and will comply with all of the above Project Terms and Conditions, Security Regulations and Scope of Work. I have received and incorporated all Addendums (if any) posted on the DAS Web Portal and have incorporated these within the bid.

Contractor Owner/Officer _____ Date: _____

Title _____

Company Name _____

Address _____

City, State Zip _____

Phone # _____ Fax # _____ FEIN# _____

Email Address: _____

Signature: _____
Contractor Owner/Officer

Subscribed and sworn to before me this_____day of_____,20_____

_____
Notary Public

**** END OF SECTION - BID FORM ****

PRE-BID REPRESENTATIVE FORM

_____was represented at the pre-bid meeting
(Company Name)

held on _____by_____
(date of meeting) (name of representative)

and, therefore, we are fully responsible for all information, site conditions, and other items discussed at the meeting.

_____
Signature

_____
Title

_____
Date

EXPERIENCE, REFERENCES, & SUB-CONTRACTORS FORM

EXPERIENCE / REFERENCES

** Reference IB 1.06 (Contractor Qualification Requirement)
List similar type installations/projects completed in the last 18 months (at least 2).

Customer Name (Company)	Contact Person	Phone #	Address of Job	Type of Work Performed
1.				
2.				
3.				

Sub-Contractors

List Sub-Contractors to be used on this project.

Sub-Contractor's Company Name	Contact Person	Phone #	% of Work by Sub-Contractor (Maximum 50%)	Type of Work to be Performed
1.				
2.				
3.				

COMMISSION ON HUMAN RIGHTS AND OPPORTUNITIES
CONTRACT COMPLIANCE REGULATIONS
NOTIFICATION TO BIDDERS

(Revised 09/17/07)

The contract to be awarded is subject to contract compliance requirements mandated by Sections 4a-60 and 4a-60a of the Connecticut General Statutes; and, when the awarding agency is the State, Sections 46a-71(d) and 46a-81i(d) of the Connecticut General Statutes. There are Contract Compliance Regulations codified at Section 46a-68j-21 through 43 of the Regulations of Connecticut State Agencies, which establish a procedure for awarding all contracts covered by Sections 4a-60 and 46a-71(d) of the Connecticut General Statutes.

According to Section 46a-68j-30(9) of the Contract Compliance Regulations, every agency awarding a contract subject to the contract compliance requirements has an obligation to "aggressively solicit the participation of legitimate minority business enterprises as bidders, contractors, subcontractors and suppliers of materials." "Minority business enterprise" is defined in Section 4a-60 of the Connecticut General Statutes as a business wherein fifty-one percent or more of the capital stock, or assets belong to a person or persons: "(1) Who are active in daily affairs of the enterprise; (2) who have the power to direct the management and policies of the enterprise; and (3) who are members of a minority, as such term is defined in subsection (a) of Section 32-9n." "Minority" groups are defined in Section 32-9n of the Connecticut General Statutes as "(1) Black Americans . . . (2) Hispanic Americans . . . (3) persons who have origins in the Iberian Peninsula . . . (4)Women . . . (5) Asian Pacific Americans and Pacific Islanders; (6) American Indians . . ." An individual with a disability is also a minority business enterprise as provided by Section 4a-60g of the Connecticut General Statutes. The above definitions apply to the contract compliance requirements by virtue of Section 46a-68j-21(11) of the Contract Compliance Regulations.

The awarding agency will consider the following factors when reviewing the bidder's qualifications under the contract compliance requirements:

(a) the bidder's success in implementing an affirmative action plan;
(b) the bidder's success in developing an apprenticeship program complying with Sections 46a-68-1 to 46a-68-17 of the Administrative Regulations of Connecticut State Agencies, inclusive;
(c) the bidder's promise to develop and implement a successful affirmative action plan;
(d) the bidder's submission of employment statistics contained in the "Employment Information Form", indicating that the composition of its workforce is at or near parity when compared to the racial and sexual composition of the workforce in the relevant labor market area; and
(e) the bidder's promise to set aside a portion of the contract for legitimate minority business enterprises. See Section 46a-68j-30(10)(E) of the Contract Compliance Regulations.

INSTRUCTIONS AND OTHER INFORMATION

The following BIDDER CONTRACT COMPLIANCE MONITORING REPORT must be completed in full, signed, and submitted with the bid for this contract. The contract awarding agency and the Commission on Human Rights and Opportunities will use the information contained thereon to determine the bidders compliance to Sections 4a-60 and 4a-60a CONN. GEN. STAT., and Sections 46a-68j-23 of the Regulations of Connecticut State Agencies regarding equal employment opportunity, and the bidders good faith efforts to include minority business enterprises as subcontractors and suppliers for the work of the contract.

1) Definition of Small Contractor

Section 4a-60g CONN. GEN. STAT. defines a small contractor as a company that has been doing business under the same management and control and has maintained its principal place of business in Connecticut for a one year period immediately prior to its application for certification under this section, had gross revenues not exceeding ten million dollars in the most recently completed fiscal year, and at least fifty-one percent of the ownership of which is held by a person or persons who are active in the daily affairs of the company, and have the power to direct the management and policies of the company, except that a nonprofit corporation shall be construed to be a small contractor if such nonprofit corporation meets the requirements of subparagraphs (A) and (B) of subdivision 4a-60g CONN. GEN. STAT.

2) Description of Job Categories (as used in Part IV Bidder Employment Information)

MANAGEMENT: Managers plan, organize, direct, and control the major functions of an organization through subordinates who are at the managerial or supervisory level. They make policy decisions and set objectives for the company or departments. They are not usually directly involved in production or providing services. Examples include top executives, public relations managers, managers of operations specialties (such as financial, human resources, or purchasing managers), and construction and engineering managers.

BUSINESS AND FINANCIAL OPERATIONS: These occupations include managers and professionals who work with the financial aspects of the business. These occupations include accountants and auditors, purchasing agents, management analysts, labor relations specialists, and budget, credit, and financial analysts.

COMPUTER SPECIALISTS: Professionals responsible for the computer operations within a company are grouped in this category. Examples of job titles in this category include computer programmers, software engineers, database administrators, computer scientists, systems analysts, and computer support specialists

ARCHITECTURE AND ENGINEERING: Occupations related to architecture, surveying, engineering, and drafting are included in this category. Some of the job titles in this category include electrical and electronic engineers, surveyors, architects, drafters, mechanical engineers, materials engineers, mapping technicians, and civil engineers.

OFFICE AND ADMINISTRATIVE SUPPORT: All clerical-type work is included in this category. These jobs involve the preparing, transcribing, and preserving of written communications and records; collecting accounts; gathering and distributing information; operating office machines and electronic data processing equipment; and distributing mail. Job titles listed in this category include telephone operators, payroll clerks, bill and account collectors, customer service representatives, files clerks, dispatchers, shipping clerks, secretaries and administrative assistants, computer operators, mail clerks, and stock clerks.

BUILDING AND GROUNDS CLEANING AND MAINTENANCE: This category includes occupations involving landscaping, housekeeping, and janitorial services. Job titles found in this category include supervisors of landscaping or housekeeping, janitors, maids, grounds maintenance workers, and pest control workers.

CONSTRUCTION AND EXTRACTION: This category includes construction trades and related occupations. Job titles found in this category include boilermakers, masons (all types), carpenters, construction laborers, electricians, plumbers (and related trades), roofers, sheet metal workers, elevator installers, hazardous materials removal workers, paperhangers, and painters. Paving, surfacing, and tamping equipment operators; drywall and ceiling tile installers; and carpet, floor and tile installers and finishers are also included in this category. First line supervisors, foremen, and helpers in these trades are also grouped in this category..

INSTALLATION, MAINTENANCE AND REPAIR: Occupations involving the installation, maintenance, and repair of equipment are included in this group. Examples of job titles found here are heating, ac, and refrigeration mechanics and installers; telecommunication line installers and repairers; heavy vehicle and mobile equipment service technicians and mechanics; small engine mechanics; security and fire alarm systems installers; electric/electronic repair, industrial, utility and transportation equipment; millwrights; riggers; and manufactured building and mobile home installers. First line supervisors, foremen, and helpers for these jobs are also included in the category.

MATERIAL MOVING WORKERS: The job titles included in this group are Crane and tower operators; dredge, excavating, and lading machine operators; hoist and winch operators; industrial truck and tractor operators; cleaners of vehicles and equipment; laborers and freight, stock, and material movers, hand; machine feeders and offbearers; packers and packagers, hand; pumping station operators; refuse and recyclable material collectors; and miscellaneous material moving workers.

3) Definition of Racial and Ethnic Terms (as used in Part IV Bidder Employment Information)

White (not of Hispanic Origin)- All persons having origins in any of the original peoples of Europe, North Africa, or the Middle East.

Black(not of Hispanic Origin)- All persons having origins in any of the Black racial groups of Africa.

Hispanic- All persons of Mexican, Puerto Rican, Cuban, Central or South American, or other Spanish culture or origin, regardless of race.

Asian or Pacific Islander- All persons having origins in any of the original peoples of the Far East, Southeast Asia, the Indian subcontinent, or the Pacific Islands. This area includes China, India, Japan, Korea, the Philippine Islands, and Samoa.

American Indian or Alaskan Native- All persons having origins in any of the original peoples of North America, and who maintain cultural identification through tribal affiliation or community recognition.

Bidder Contract Compliance Monitoring Report

PART I - Bidder Information

Company Name Street Address City & State Chief Executive	Bidder Federal Employer Identification Number_____ Or Social Security Number_____
Major Business Activity (brief description)	Bidder Identification (response optional/definitions on page 1) -Bidder is a small contractor. Yes__ No__ -Bidder is a minority business enterprise Yes__ No__ (If yes, check ownership category) Black___ Hispanic___ Asian American___ American Indian/Alaskan Native___ Iberian Peninsula___ Individual(s) with a Physical Disability___ Female___
Bidder Parent Company (If any)	- Bidder is certified as above by State of CT Yes__ No__
Other Locations in Ct. (If any)	- DAS Certification Number _____

PART II - Bidder Nondiscrimination Policies and Procedures

1. Does your company have a written Affirmative Action/Equal Employment Opportunity statement posted on company bulletin boards? Yes__ No__	7. Do all of your company contracts and purchase orders contain non-discrimination statements as required by Sections 4a-60 & 4a-60a Conn. Gen. Stat.? Yes__ No__
2. Does your company have the state-mandated sexual harassment prevention in the workplace policy posted on company bulletin boards? Yes__ No__	8. Do you, upon request, provide reasonable accommodation to employees, or applicants for employment, who have physical or mental disability? Yes__ No__
3. Do you notify all recruitment sources in writing of your company's Affirmative Action/Equal Employment Opportunity employment policy? Yes__ No__	9. Does your company have a mandatory retirement age for all employees? Yes__ No__
4. Do your company advertisements contain a written statement that you are an Affirmative Action/Equal Opportunity Employer? Yes__ No__	10. If your company has 50 or more employees, have you provided at least two (2) hours of sexual harassment training to all of your supervisors? Yes__ No__ NA__
5. Do you notify the Ct. State Employment Service of all employment openings with your company? Yes__ No__	11. If your company has apprenticeship programs, do they meet the Affirmative Action/Equal Employment Opportunity requirements of the apprenticeship standards of the Ct. Dept. of Labor? Yes__ No__ NA__
6. Does your company have a collective bargaining agreement with workers? Yes__ No__ 6a. If yes, do the collective bargaining agreements contain non-discrimination clauses covering all workers? Yes__ No__ 6b. Have you notified each union in writing of your commitments under the nondiscrimination requirements of contracts with the state of Ct? Yes__ No__	12. Does your company have a written affirmative action Plan? Yes__ No__ If no, please explain. 13. Is there a person in your company who is responsible for equal employment opportunity? Yes__ No__ If yes, give name and phone number. _____ _____

Part III - Bidder Subcontracting Practices

1. Will the work of this contract include subcontractors or suppliers? Yes__ No__

1a. If yes, please list all subcontractors and suppliers and report if they are a small contractor and/or a minority business enterprise. (defined on page 1 / use additional sheet if necessary)

1b. Will the work of this contract require additional subcontractors or suppliers other than those identified in 1a. above? Yes__ No__

PART IV - Bidder Employment Information Date:

JOB CATEGORY	OVERALL TOTALS	WHITE (not of Hispanic origin)		BLACK (not of Hispanic origin)		HISPANIC		ASIAN or PACIFIC ISLANDER		AMERICAN INDIAN or ALASKAN NATIVE	
		Male	Female	Male	Female	Male	Female	Male	Female	male	female
Management											
Business & Financial Ops											
Computer Specialists											
Architecture/Engineering											
Office & Admin Support											
Bldg/ Grounds Cleaning/Maintenance											
Construction & Extraction											
Installation , Maintenance & Repair											
Material Moving Workers											
TOTALS ABOVE											
Total One Year Ago											
FORMAL ON THE JOB TRAINEES (ENTER FIGURES FOR THE SAME CATEGORIES AS ARE SHOWN ABOVE)											
Apprentices											
Trainees											

PART V - Bidder Hiring and Recruitment Practices

1. Which of the following recruitment sources are used by you? (Check yes or no, and report percent used)

SOURCE	YES	NO	% of applicants provided by source
State Employment Service			
Private Employment Agencies			
Schools and Colleges			
Newspaper Advertisement			
Walk Ins			
Present Employees			
Labor Organizations			
Minority/Community Organizations			
Others (please identify)			

2. Check (X) any of the below listed requirements that you use as a hiring qualification

(X)	
	Work Experience
	Ability to Speak or Write English
	Written Tests
	High School Diploma
	College Degree
	Union Membership
	Personal Recommendation
	Height or Weight
	Car Ownership
	Arrest Record
	Wage Garnishments

3. Describe below any other practices or actions that you take which show that you hire, train, and promote employees without discrimination

Certification (Read this form and check your statements on it CAREFULLY before signing). I certify that the statements made by me on this BIDDER CONTRACT COMPLIANCE MONITORING REPORT are complete and true to the best of my knowledge and belief, and are made in good faith. I understand that if I knowingly make any misstatements of facts, I am subject to be declared in non-compliance with Section 4a-60, 4a-60a, and related sections of the CONN. GEN. STAT.

(Signature)	(Title)	(Date Signed)	(Telephone)

STATE OF CONNECTICUT

GIFT AND CAMPAIGN CONTRIBUTION CERTIFICATION

Certification to accompany a State contract with a value of $50,000 or more in a calendar or fiscal year, pursuant to C.G.S. §§ 4-250 and 4-252(c); Governor M. Jodi Rell's Executive Orders No. 1, Para. 8, and No. 7C, Para. 10; and C.G.S. §9-612(g)(2), as amended by Public Act 07-1

INSTRUCTIONS:

Complete all sections of the form. Attach additional pages, if necessary, to provide full disclosure about any lawful campaign contributions made to campaigns of candidates for statewide public office or the General Assembly, as described herein. Sign and date the form, under oath, in the presence of a Commissioner of the Superior Court or Notary Public. Submit the completed form to the awarding State agency at the time of initial contract execution (and on each anniversary date of a multi-year contract, if applicable).

CHECK ONE: ☐ Initial Certification ☐ Annual Update (Multi-year contracts only.)

GIFT CERTIFICATION:

As used in this certification, the following terms have the meaning set forth below:

1. **"Contract" means that contract between the State of Connecticut (and/or one or more of it agencies or instrumentalities) and the Contractor, attached hereto, or as otherwise described by the awarding State agency below;**
2. **If this is an Initial Certification, "Execution Date" means the date the Contract is fully executed by, and becomes effective between, the parties; if this is an Annual Update, "Execution Date" means the date this certification is signed by the Contractor;**
3. **"Contractor" means the person, firm or corporation named as the contactor below;**
4. **"Applicable Public Official or State Employee" means any public official or state employee described in C.G.S. §4-252(c)(1)(i) or (ii);**
5. "Gift" **has the same meaning given that term in C.G.S. § 4-250(1);**
6. **"Planning Start Date" is the date the State agency began planning the project, services, procurement, lease or licensing arrangement covered by this Contract, as indicated by the awarding State agency below; and**
7. **"Principals or Key Personnel" means and refers to those principals and key personnel of the Contractor, and its or their agents, as described in C.G.S. §§ 4-250(5) and 4-252(c)(1)(B) and (C).**

I, the undersigned, am the official authorized to execute the Contract on behalf of the Contractor. I hereby certify that, between the Planning Start Date and Execution Date, neither the Contractor nor any Principals or Key Personnel has made, will make (or has promised, or offered, to, or otherwise indicated that he, she or it will, make) any **Gifts** to any Applicable Public Official or State Employee.

I further certify that no Principals or Key Personnel know of any action by the Contractor to circumvent (or which would result in the circumvention of) the above certification regarding **Gifts** by providing for any other principals, key personnel, officials, or employees of the Contractor, or its or their agents, to make a **Gift** to any Applicable Public Official or State Employee. I further certify that the Contractor made the bid or proposal for the Contract without fraud or collusion with any person.

CAMPAIGN CONTRIBUTION CERTIFICATION:

I further certify that, on or after December 31, 2006, neither the Contractor nor any of its principals, as defined in C.G.S. § 9-612(g)(1), has made any **campaign contributions** to, or solicited any contributions on behalf of, any exploratory committee, candidate committee, political committee, or party committee established by, or supporting or authorized to support, any candidate for statewide public office, in violation of C.G.S. § 9-612(g)(2)(A). I further certify that **all lawful campaign contributions** that have been made on or after December 31, 2006 by the Contractor or any of its principals, as defined in C.G.S. § 9-612(g)(1), to, or solicited on behalf of, any exploratory committee, candidate committee, political committee, or party committee established by, or supporting or authorized to support any candidates for statewide public office or the General Assembly, are listed below:

STATE OF CONNECTICUT
GIFT AND CAMPAIGN CONTRIBUTION CERTIFICATION

Lawful Campaign Contributions to Candidates for Statewide Public Office:

Contribution Date Description	Name of Contributor	Recipient	Value

Lawful Campaign Contributions to Candidates for the General Assembly:

Contribution Date Description	Name of Contributor	Recipient	Value

Sworn as true to the best of my knowledge and belief, subject to the penalties of false statement.

_____ _____

Printed Contractor Name **Signature of Authorized Official**

Subscribed and acknowledged before me this _____ day of _____, 200__.

_____

Commissioner of the Superior Court (or Notary Public)

For State Agency Use Only

_____ _____

Awarding State Agency Planning Start Date

_____

Contract Number or Description

STATE OF CONNECTICUT
LABOR DEPARTMENT

WAGE & WORKPLACE STANDARDS DIVISION

CONTRACTORS WAGE CERTIFICATION FORM
Contracts Greater than or Equal to $100,000

I,_____of_____
Officer, Owner, Authorized Representative *Company Name*

do hereby certify that the_____
Company Name

_____
Street

_____
City

and all of its subcontractors will pay all workers on the

_____
Project Name and Number

_____
Street and City

the wages as listed in the current Dept. of Labor prevailing wage rates, as required for such project, per section IB 1.10.

_____
Signed

Subscribed and sworn to before me this_____day
of_____,20_____

_____
Notary Public

Send 1 copy to: Labor Department
Wage & Workplace Standards Division
200 Folly Brook Blvd.
Wethersfield, CT 06109

"With regard to a State contract as defined in P.A. 07-1 having a value in a calendar year of $50,000 or more or a combination or series of such agreements or contracts having a value of $100,000 or more, the authorized signatory to this submission in response to the State's solicitation expressly acknowledges receipt of the State Elections Enforcement Commission's notice advising prospective state contractors of state campaign contribution and solicitation prohibitions, and will inform its principals of the contents of the notice.

SEEC FORM 11

NOTICE TO EXECUTIVE BRANCH STATE CONTRACTORS AND PROSPECTIVE STATE CONTRACTORS OF CAMPAIGN CONTRIBUTION AND SOLICITATION BAN

This notice is provided under the authority of Connecticut General Statutes 9-612(g)(2), as amended by P.A. 07-1, and is for the purpose of informing state contractors and prospective state contractors of the following law (italicized words are defined below):

Campaign Contribution and Solicitation Ban

No *state contractor, prospective state contractor, principal of a state contractor or principal of a prospective state contractor*, with regard to a *state contract* or *state contract solicitation* with or from a state agency in the executive branch or a quasi-public agency or a holder, or principal of a holder of a valid prequalification certificate, shall make a contribution to, or *solicit* contributions on behalf of (i) an exploratory committee or candidate committee established by a candidate for nomination or election to the office of Governor, Lieutenant Governor, Attorney General, State Comptroller, Secretary of the State or State Treasurer, (ii) a political committee authorized to make contributions or expenditures to or for the benefit of such candidates, or (iii) a party committee;

In addition, no holder or principal of a holder of a valid prequalification certificate, shall make a contribution to, or solicit contributions on behalf of (i) an exploratory committee or candidate committee established by a candidate for nomination or election to the office of State senator or State representative, (ii) a political committee authorized to make contributions or expenditures to or for the benefit of such candidates, or (iii) a party committee.

Duty to Inform

State contractors and prospective state contractors are required to inform their principals of the above prohibitions, as applicable, and the possible penalties and other consequences of any violation thereof.

Penalties for Violations

Contributions or solicitations of contributions made in violation of the above prohibitions may result in the following civil and criminal penalties:

Civil penalties--$2000 or twice the amount of the prohibited contribution, whichever is greater, against a principal or a contractor. Any state contractor or prospective state contractor which fails to make reasonable efforts to comply with the provisions requiring notice to its principals of these prohibitions and the possible consequences of their violations may also be subject to civil penalties of $2000 or twice the amount of the prohibited contributions made by their principals.

Criminal penalties—Any knowing and willful violation of the prohibition is a Class D felony, which may subject the violator to imprisonment of not more than 5 years, or $5000 in fines, or both.

Contract Consequences

Contributions made or solicited in violation of the above prohibitions may result, in the case of a state contractor, in the contract being voided.

Contributions made or solicited in violation of the above prohibitions, in the case of a prospective state contractor, shall result in the contract described in the state contract solicitation not being awarded to the prospective state contractor, unless the State Elections Enforcement Commission determines that mitigating circumstances exist concerning such violation.

The State will not award any other state contract to anyone found in violation of the above prohibitions for a period of one year after the election for which such contribution is made or solicited, unless the State Elections Enforcement Commission determines that mitigating circumstances exist concerning such violation.

Additional information and the entire text of P.A 07-1 may be found on the website of the State Elections Enforcement Commission, www.ct.gov/seec. Click on the link to "State Contractor Contribution Ban."

Definitions:

"State contractor" means a person, business entity or nonprofit organization that enters into a state contract. Such person, business entity or nonprofit organization shall be deemed to be a state contractor until December thirty-first of the year in which such contract terminates. "State contractor" does not include a municipality or any other political subdivision of the state, including any entities or associations duly created by the municipality or political subdivision exclusively amongst themselves to further any purpose authorized by statute or charter, or an employee in the executive or legislative branch of state government or a quasi-public agency, whether in the classified or unclassified service and full or part-time, and only in such person's capacity as a state or quasi-public agency employee.

"Prospective state contractor" means a person, business entity or nonprofit organization that (i) submits a response to a state contract solicitation by the state, a state agency or a quasi-public agency, or a proposal in response to a request for proposals by the state, a state agency or a quasi-public agency, until the contract has been entered into, or (ii) holds a valid prequalification certificate issued by the Commissioner of Administrative Services under section 4a-100. "Prospective state contractor" does not include a municipality or any other political subdivision of the state, including any entities or associations duly created by the municipality or political subdivision exclusively amongst themselves to further any purpose authorized by statute or charter, or an employee in the executive or legislative branch of state government or a quasi-public agency, whether in the classified or unclassified service and full or part-time, and only in such person's capacity as a state or quasi-public agency employee.

"Principal of a state contractor or prospective state contractor" means (i) any individual who is a member of the board of directors of, or has an ownership interest of five per cent or more in, a state contractor or prospective state contractor, which is a business entity, except for an individual who is a member of the board of directors of a nonprofit organization**,** (ii) an individual who is employed by a state contractor or prospective state contractor, which is a business entity, as president, treasurer or executive vice president, (iii) an individual who is the chief executive officer of a state

ontractor or prospective state contractor, which is not a business entity, or if a state contractor or prospective state contractor has no such officer, then the officer who duly possesses comparable powers and duties, (iv) an officer or an employee of any state contractor or prospective state contractor who has *managerial or discretionary responsibilities with respect to a state contract,* (v) the spouse or a *dependent child* who is eighteen years of age or older of an individual described in this subparagraph, or (vi) a political committee established or controlled by an individual described in this subparagraph or the business entity or nonprofit organization that is the state contractor or prospective state contractor.

"State contract" means an agreement or contract with the state or any state agency or any quasi-public agency, let through a procurement process or otherwise, having a value of fifty thousand dollars or more, or a combination or series of such agreements or contracts having a value of one hundred thousand dollars or more in a calendar year, for (i) the rendition of services, (ii) the furnishing of any goods, material, supplies, equipment or any items of any kind, (iii) the construction, alteration or repair of any public building or public work, (iv) the acquisition, sale or lease of any land or building, (v) a licensing arrangement, or (vi) a grant, loan or loan guarantee. "State contract" does not include any agreement or contract with the state, any state agency or any quasi-public agency that is exclusively federally funded, an education loan or a loan to an individual for other than commercial purposes.

"State contract solicitation" means a request by a state agency or quasi-public agency, in whatever form issued, including, but not limited to, an invitation to bid, request for proposals, request for information or request for quotes, inviting bids, quotes or other types of submittals, through a competitive procurement process or another process authorized by law waiving competitive procurement.

“Managerial or discretionary responsibilities with respect to a state contract” means having direct, extensive and substantive responsibilities with respect to the negotiation of the state contract and not peripheral, clerical or ministerial responsibilities.

“Dependent child” means a child residing in an individual’s household who may legally be claimed as a dependent on the federal income tax of such individual.

“Solicit” means (A) requesting that a contribution be made, (B) participating in any fund-raising activities for a candidate committee, exploratory committee, political committee or party committee, including, but not limited to, forwarding tickets to potential contributors, receiving contributions for transmission to any such committee or bundling contributions, (C) serving as chairperson, treasurer or deputy treasurer of any such committee, or (D) establishing a political committee for the sole purpose of soliciting or receiving contributions for any committee. Solicit does not include: (i) making a contribution that is otherwise permitted by Chapter 155 of the Connecticut General Statutes; (ii) informing any person of a position taken by a candidate for public office or a public official, (iii) notifying the person of any activities of, or contact information for, any candidate for public office; or (iv) serving as a member in any party committee or as an officer of such committee that is not otherwise prohibited in this section.

INSTRUCTIONS TO BIDDERS

IB 1.01 General

These instructions to bidders are for the complete project known as: **DDS-9018 – Woodbridge Boiler Replacement Project.** The project will be bid in strict accordance with the specifications as prepared by the Connecticut Department of Developmental Services and procedures set fourth by the Department of Public Works. The amount of each bid shall be deemed to include the entire cost and expense of every item of labor and material necessary to complete the work bid upon, in full detail, ready for use. The risk of all such costs and expenses shall be assumed by the successful bidder.

It is the intent of the specifications to call for finished work, tested, and ready for operation and use. Any incidental accessory necessary to make the work complete in all respects and ready for operation, even if not particularly specified, shall be provided without extra compensation. Minor products or items of work, which by custom are not usually shown or specified, but are necessary for proper installation and operation of the completed work, shall be provided in the same manner as if actually shown or specified.

During construction in a Developmental Services facility, there may be delays due to various safety or security issues. This needs to be taken into consideration in your submitted bid. The Department of Developmental Services will not authorize extra compensation for these delays. The department will assign a facility representative to work with the selected contractor as liaison.

Facility Representative:
John Massicotte, PFE
Tel: 860-263-2486
Email Address: john.massicotte@ct.gov

Agency Representative:
Jeffrey Cyr
Director of Engineering
Tel: 860-418-6031
Fax: 860-418-6001
Email Address: jeff.cyr@ct.gov

IB 1.02 Bid Form and Acceptance

1. All **sealed bids** must be **received** by the date and time specified at the office of **Tina Jordan, FAO** at the following address:

DDS – North Region
155 Founders Plaza
255 Pitkin Street
East Hartford, CT 06108

It is recommended that you call prior to the bid opening to verify that your bid has been received.

2. Bid envelopes must clearly indicate the project number as well as the date and time of bid opening. Any correspondence shall include the project number and project title.

3. Enclosed with this specification is a BID FORM on which bids must be submitted.

4. The project shall be bid on the enclosed BID FORM as follows:

    a. Base Bid - complete as described herein.

    b. Supplemental Bid (if any) - complete as described herein. (Supplemental Bids may be accepted or not accepted by the agency, however if accepted the low bid will be determined by the total of the base bid and the supplemental bid(s).)

    c. All BID FORMS shall be signed by a person duly authorized to sign bids on behalf of the bidder. Unsigned bids will be rejected.

    d. Contractors failing to provide supplemental bids shall be deemed non-responsive and will be disqualified.

5. If you do not wish to submit a bid, return the BID FORM with the indication "No Bid Submitted," as well a brief indication why.

6. The contract will be awarded to the lowest qualified bidder within the Agencies budget figure.

7. The Department of Developmental Services shall have the right to accept or reject the bids within ninety (90) calendar days of the bid opening date. All bid prices must be firm for this ninety (90) day period.

IB 1.03 Phasing Plan

Please refer to phasing plan within technical specifications.

IB 1.04 Scope of Work

Furnish all required labor, equipment, services, and materials necessary to complete all work as specified in the technical specifications section. Remove all debris created by this contract.

IB 1.05 Location and Examination of Site

1. The work will be performed at: **Woodbridge Group Home, 10 Woodbridge Ave, East Hartford, CT**

2. All contractors bidding for this project are required to visit and examine the site before bidding, and to verify job conditions and dimensions. Time, date, and location of pre-bid meeting are as noted on bid package cover sheet. **Bids received from non-attending contractors will not be honored.**
   This meeting is intended to review the project requirements and answer any questions that interested contractors may have about this project. Failure to attend this meeting will result in the rejection of your bid.

IB 1.06 Contractor Qualification Requirement

The contractor shall demonstrate capability to execute this contract by submitting evidence of the following:

1. Valid Connecticut license(s), if required, to perform the required work.

2. Listing of two projects of similar scope and size that were performed within the last 18 months. Include the name, address and telephone number of a contact at each job that can be contacted and who is familiar with the project.

IB 1.07 Protection of Work and Property

1. All building equipment, furnishings, grounds landscaping, etc., shall be protected from damage of every description and any such damage thereto shall be repaired or otherwise made good at no expense to the State and to the satisfaction of the Facility Representative.

2. Supply and install any and all protective coverings and barricades necessary to protect at all times the public and building personnel from injury.

3. The contractor shall be held responsible for, and must make good at his own expense, any water damage or any other cause of damage due to improper protection.

4. Due to the nature of this institution, it is mandatory that all rules and regulations be strictly adhered to and the necessary precautions taken.

5. The contractor shall, during the progress of the construction, assume all responsibilities for loss or damage by fire to the work included in his contract until completion of the contract. No flammable material shall be stored in the structure in excess of the amounts allowed by the authorities.

6. The contractor is responsible to assure that all work is performed in accordance with all current State regulations including, but not limited to, OSHA, State Fire Codes, and the Basic Building Code of the State of Connecticut.

7. The contractor will at all times keep the premises free from the accumulation of waste materials or rubbish caused by his employees or work. All accumulated material shall be removed from the site daily at the contractors expense.

IB 1.08 Form of Guarantee--Warranty

The General Contractor will furnish the foregoing documents in the following manner:

1. Address to:

   DDS – North Region
   Attn: Tina Jordan
   155 Founders Plaza
   255 Pitkin Street
   East Hartford, CT 06108

2. Provide project name and number of project.

3. I (we) hereby guarantee, (or warranty), the work on the referenced project for a period of one (1) year from the Facility's approved completion date, against failures of workmanship and materials, unless otherwise noted on specifications. The completion date shall be the date of final payment is received by the contractor.

4. All guarantees supplied by subcontractors, suppliers or manufacturers will be countersigned by the General Contractor.

IB 1.09 Time of Completion

The contractor shall complete the project within the number of calendar days identified on page 1 of the BID FORM. Calendar days begin on the day of issuance of purchase order. Once on site, the contractor's work force shall remain mobilized until work is completed unless otherwise is specifically approved by the facility representative, in writing. Crews and material deliveries are to be scheduled to meet the completion date. If due to unforeseeable circumstances the work is not complete at the specified completion date, the contractor must obtain written permission from the facility representative and a new mutually agreed upon completion date must be established, or, liquidated damages, as described in section IB 1.17 will become effective. Working days for this project shall be Monday through Friday, exclusive of State or National Holidays. No Saturday or Sunday work shall be allowed without special written permission by the facility representative. Upon completion of the contract, the contractor shall make a request to the Facility Representative to schedule a final inspection of the work.

IB 1.10 Wage Rates

Prevailing wage rates are applicable if the submitted bid exceeds the sum of $400,000.00 (for new construction) or $100,000.00 (if renovation/alteration/ repair or improvement). New construction is defined as building an entire “brand new” building. The contractor is responsible for assuring that the payment of wages are as published by the Connecticut State Labor Department for the area where the job is being performed.
In accordance with the provisions of Section 31-53 of the General Statutes of Connecticut, the following applies "The wages paid on an hourly basis to any mechanic, laborer or workman employed upon the work herein contracted to be done and the amount of payment or contribution paid or payable on behalf of each such employee to any employee welfare fund, as defined in subsection (h) of this section (31-53 of the General Statues), shall be at a rate equal to the rate customary or prevailing for the same work in the same trade or occupation in the town in which such public works project is being constructed. Any contractor who is not obligated by agreement to make payment or contribution on behalf of such employees to any such employee welfare fund shall pay to each employee as part of his wages the amount of payment or contribution for his classification on each pay day."

IB 1.11 Bonds

1. A bid surety of not less than 10% of bid amount is required to accompany bid in the form of a bond or certified check made out to the Comptroller of the State of Connecticut if bid exceeds $10,000.

2. A performance, and labor and material payment, surety of not less than 100% of bid amount is required of low bidder in the form of a bond made out to the Comptroller of the State of Connecticut if bid exceeds $50,000. It is to be submitted to the Department of Developmental Services business office representative prior to award of contract and issuance of purchase order.

3. Such checks or bid bonds will be returned to all except the three lowest bidders within three days after the opening of bids, and the remaining checks or bid bonds will be returned promptly after the awarding authority and the accepted bidder have executed contract, or, if no award has been made within 60 days after the date of the opening of bids, upon demand of the bidder so long as he/she has not been notified of the acceptance of his/her bid.

4. NONRESIDENT (out of State) CONTRACTOR BOND - In order for final payment to be processed to a nonresident contractor, a certificate from the Commissioner of Revenue Services must be provided which evidences that Connecticut General Statutes Section 12-430 for non-resident contractors has been met. For details concerning the filing of this 5% Guarantee Bond with the Department of Revenue Services (DRS), call the DRS at (860) 541 7538.

IB 1.12 Insurance

1. The Contractor shall not start work under this contract until he has obtained the following insurance and until the insurance has been approved by the owner nor shall the contractor allow any subcontractor to start work until insurance required by the subcontractor has been obtained and approved. The contractor shall send certificate for the insurance to the business office representative.

2. The Contractor shall take out and maintain during the life of the contract, workers' compensation insurance for all employees working at the site and, in case any work is sublet, the Contractor shall require the subcontractor to provide workers' compensation insurance for all of the latter's employees. In case any class of employees engaged in hazardous work under this Contract is not protected under the workers' compensation statute, the Contractor shall provide, and shall cause each subcontractor to provide, insurance for those employees.

3. The Contractor shall take out and maintain during the life of a contract, public liability and property damage insurance to protect him/her and the owner's interest as their interests may appear. Each subcontractor shall take out and maintain insurance to protect him/her from claims for damage for injury, including accidental death and from claims for property damage which may arise from operations under this contract, whether such operations be by himself/herself or by any subcontractor or by any employee unless such employees are covered by the protection afforded by the Contractor. Types and amounts of insurance required shall be as follows:

DESCRIPTION	**COVERAGE**	**SINGLE LIMIT**	**EACH ACCIDENT**	**AGGREGATE**
Protective Liability	BI	$1,000,000		
Protective Liability	PD	$100,000		$500,000

(for and in the name of the State of Connecticut)

DESCRIPTION	**COVERAGE**	**SINGLE LIMIT**	**EACH ACCIDENT**	**AGGREGATE**
Contractor's Liability	BI	$1,000,000		
Contractor's Liability	PD	$100,000		$500,000
Contractor's Protective Liability	BI	$1,000,000		
Contractor's Protective Liability	PD	$100,000		$500,000

4. Coverage for damage or loss resulting from Type C - Collapse or Structural Injury, Type U - Underground Damage, Type X - explosion or blasting, ordinarily excluded from coverage, shall be provided in the amounts and manner specified in this article if required in the bid for the specified project. Builders Risk insurance, not ordinarily required, shall be provided in accordance with the amount and manner specified in the bid for the specified project if such insurance is required in the bid.

IB 1.13 Licenses

It is the responsibility of the contractor to secure all licenses, permits, approvals, or other documents necessary to complete this project.

IB 1.14 Security

The contractor must abide by all security regulations as described in or attached to this documentation.

IB 1.15 Start of Work

The contractor will not start work or order materials before receipt of a fully executed and approved purchase order. Within two (2) working days after receipt of the purchase order and prior to the start of construction, the contractor shall schedule a pre-construction meeting with the facility representative and at that time a start date will be established. The contractor shall begin construction within ten (10) working days. Working days shall be considered as Monday through Friday.

IB 1.16 Payment

a. Projects under $25,000.00 - A single invoice shall be submitted by the prime contractor following the acceptance of the completed project.

b. Projects $25,000.00 or greater - Three invoices shall be submitted by the prime contractor; one when all material or equipment is on site or the project is 50% completed (which ever occurs first), two when the project is substantially complete, and three when the project is totally complete and accepted.

c. The invoice shall contain the State Purchase Order number and project number. Invoices received without reference to a valid State Purchase Order number and project number will result in delay of payment

d. NONRESIDENT (out of State) CONTRACTOR BOND - In order for final payment to be processed to a nonresident contractor, a certificate from the Commissioner of Revenue Services must be provided which evidences that Connecticut General Statutes Section 12-430 for non-resident contractors has been met. For details concerning the filing of this 5% Guarantee Bond with the Department of Revenue Services (DRS), call the DRS at (860) 541 7538.

IB 1.17 Liquidated Damages

It is hereby declared and agreed by and between the contractor and the owner that the date of commencement, rate of progress, and time of completion of the work are essential provisions, conditions and that it would be impracticable and impossible to determine and ascertain the actual damages the owners would incur by reason of a delay in the completion of the work. It is, therefore, covenanted and agreed by and between the contractor and owner that the contractor shall and does hereby agree to pay the owner as liquidated damages (and not as a penalty) the sum of two hundred dollars ($200.00) for each and every working day that the contractor shall be in default, hereunder for failing to complete the project within the time of completion specified above except as such date shall be extended, in writing upon request of the contractor, for the period of an excusable delay. Any such payments due to the owner by the contractor may be deducted by the owner from any sums due to the contractor.

IB 1.18 RECEIPT OF BIDS

BIDS SHALL BE PLACED IN SEALED ENVELOPES MARKED "SEALED BID OPENING, PROJECT # DDS-9018" AND DELIVERED/RECEIVED PRIOR TO THE BID OPENING DATE AND TIME LISTED ON THE COVER SHEET.
DELIVER TO:

Tina Jordan
DDS – North Region
155 Founders Plaza
255 Pitkin Street
East Hartford, CT 06108

End of Section Revised Date: 10/2008

GENERAL CONDITIONS

GC 1.01 General

In addition to the conditions in the Instructions to Bidders, the following General Conditions shall apply and form an equal part of the contract documents.

GC 1.02 Use of the Premises

1. Nothing contained in the Specifications shall be interpreted as giving the Contractor exclusive use of the premises where the work is performed.

2. The Contractor shall be held solely responsible for any damage to the existing structures, systems, equipment and site caused by them or by their employees and shall repair or replace same to their original condition as directed by the facility representative at no additional cost to the owner.

3. The work of the contract shall not interfere with the normal conditions and safe operation of the building and site. If such interference appears possible because of construction to existing work or other reasons, the work involved must be done at a time and in a manner directed by the facility representative as a part of the contract.

4. The contractor shall supply and install any and all protective coverings and barricades necessary to protect at all times the clients, public and building personnel from injury and the building from damage. The contractor shall provide and install all plastic sheeting, and other materials, which he/she may require to protect all open, unfinished work at the end of each and every day.

5. The contractor shall secure unfinished work areas at the close of business each day to preclude passage by any and all unauthorized persons.

6. No flammable material shall be stored in the structure in excess of the amounts allowed by the fire codes and authorities. No gasoline shall be stored within the building.

7. Protection of building, building occupants and visitors.

    a. Construct barriers to prevent dust from construction areas from entering client areas. Barriers must be impermeable to fungal spores and in compliance with local fire codes.

    b. Seal off and block return air vents if rigid barriers are used for containment.

    c. Implement dust control measures on surfaces and divert pedestrian traffic away from work zones.

    d. If necessary, create negative air pressure in work zones adjacent to client care areas and insure that required engineering controls are maintained. Monitor negative airflow.

    e. Direct pedestrian traffic away from construction zones.

f. Provide construction crews with: Designated entrances, corridors and elevators if possible,

g. Contractor shall clean work zones and their entrances daily.

h. Contractor shall cover and secure debris prior to removal from the construction area.

i. In client care areas, for major repairs that include removal of walls and disruption of the space within, the contractor shall use plastic sheets or prefabricated plastic units to contain dust and a HEPA (High Efficiency Particulate Air)filter machine to clean the air.

GC 1.03 Storage or Equipment and Materials

1. All deliveries of material, equipment, etc., shall be made to the contractor and accepted only by him/her and only during working hours. Department of Developmental Services personnel will not receive or accept any materials or equipment, etc. at any time.

2. The contractor shall secure instructions from the facility representative's as to available space for storing materials, tools, etc. If adequate space is not available, he/she shall provide his/her own storage facilities and in all cases be responsible for its protection.

3. All materials used throughout work shall be neatly stacked so as not to obstruct traffic, or the progress of the work.

4. All materials delivered to the job site will be protected by the contractor from weather damage, loss, or vandalism.

GC 1.04 Codes, Rules, Ordinances and Approvals

1. All materials furnished and all work installed shall comply with the rules and recommendations of the State of Connecticut; and must comply with all applicable State and local code, laws, ordinances, rules and regulations, with all requirements of local utility companies, and with the recommendations of the Insurance Rating Organization having jurisdiction.

2. It is intended that the technical specifications not violate any of the above. Where violations occur, such codes, laws, rules, ordinances, regulations and recommendations shall be complied with. The contractor must call any such violations to the attention of the Department of Developmental Services facility representative before making any changes to the specifications or proceeding with the work.

3. The Contractor shall, at his expense, give all notices, obtain all permits, licenses, approvals, fees and other costs in connection with the work and obtain all required certificates of inspection for the work and deliver same to the Department of Developmental Services facility representative before requesting acceptance and final payment.

4. All apparatus, equipment, such as ladders, scaffolding, chutes, etc., shall comply with the recommendations of the Manual of Accident Prevention in Construction, published by the Associated General Contractors of America, OHSA, and approved revisions.

5. The contractor must at all times maintain a fire safe environment. Fire extinguishers are to be provided by the contractor, at all work sites, of the size and type required for the work being performed. Sprinkler and alarm systems are not to be shut down or impaired without the approval of the facility representative. Welding will only be performed by certified welders. When welding is being performed there is to be a fire watch provided with extinguishing equipment at his or her immediate access.

GC 1.05 Salvage and Disposal

1. All removed materials that are deemed salvageable by the facility representative are the property of the facility (State of Connecticut). The facility's representative will direct which materials the facility will retain and which material the contractor shall retain and/or dispose of. Facility retained material is to be relocated by the contractor to an area designated by the facility's representative at the contractor's expense.

2. All debris resulting from the performance of this contract will be the property of the contractor and will be completely removed from the facility daily. All permits, manifests, fees or other requirements for the proper disposal of such debris is the sole responsibility of the contractor. If a hazardous material is involved, copies of manifest slips must be provided to the facility representative.

3. Chutes and dumpster type containers designed to keep dust and spillage to a minimum will be supplied and used by the contractor at his/her own expense.

GC 1.06 Maintenance of Utilities

1. The Department of Developmental Services has the responsibility for the operation of the entire utility distribution system. Any operation or function in relation to the work which could render said system(s) inoperable shall be coordinated, upon notification by the contractor, by the facility representative. All operational changes shall be made in this manner.

2. When installation of new work requires the temporary shutdown of an existing operating system, the connection of the new work shall be performed at such time as designated by the facility representative. The facility representative reserves the right to limit the shutdown time to a specified number of net hours and set the date and time of each occasion of complete shutdown. Notify facility representative of the estimated duration of the shutdown period at least seven (7) days in advance of the date the work is to be performed.

3. Any shutdown to the service which will interrupt critical operations shall be protected by the provision of a safe and adequate temporary means of service replacement, supplied at the contractors expense, which shall be removed when no longer required. The contractor shall insure all tools, supplies, equipment and labor is on hand and in position to start the moment the shutdown period is made available to him.

GC 1.07 Change Orders

1. No additional compensation or time shall be granted beyond that noted on the original purchase order, unless approved in writing by the **Agency Representative.**

2. The Department of Developmental Service's **Agency Representative** is identified on the invitation to bid section. Changes, proceeds, or approvals from others will not be honored.

GC 1.08 Shop Drawings

1. Shop drawings shall be submitted as required to the facility representative and/or as noted on the plans and technical specifications.

2. The contractor shall make any corrections required by the facility representative at no additional cost to the state and submit 2 corrected copies to the facility representative.

3. It is the contractors responsibility to flag deviations from the contract documents. An approval will not be considered an acceptance of the deviation unless it has been explicitly and clearly identified in writing.

GC 1.09 Substitutions

If substitutions are permitted, it is the responsibility of the contractor to provide the necessary documents to prove that the product is equal to that specified. These documents must be received by the facility representative for his approval/disapproval prior to the date stated on the front cover sheet.

GC 1.10 Quality Control

1. Comply with manufacturer's recommendations and association or trade instructions and specifications for storage, use, and installation of their products. All materials and equipment shall be installed in strict accordance with the manufacturer's recommendations. This shall include any and all steps, treatments, or maintenance required before placing into use or placing into service.

2. Comply with instructions in full detail, including each step in sequence. Should instructions conflict with contract documents, request clarification from facility representative before proceeding.

3. When instructed by facility representative, submit manufacturers data sheets, including instructions and recommendations.

4. If substitutions are permitted, it is the responsibility of the contractor to provide the necessary documents to prove that the product is equal to what is specified. These documents must be received by the facility representative for his approval/disapproval prior to use.

GC 1.11 Owners Right to Stop Work or terminate Contract

1. The owner has the right to stop work and/or terminate this contract under any or all of the following conditions:

a. If the contractor shall be adjudged bankrupt or make an assignment for the benefit of creditors.

b. If a receiver or liquidator shall be appointed for the contractor or for any of his property and shall not be discharged within 20 days after such appointment or the proceedings in connection therewith shall not be stayed on appeal within the said 20 days.

c. The contractor shall refuse or fail, after written notice of warning from the Agency Representative, to supply sufficient properly skilled workmen or proper materials.

d. The contractor shall refuse or fail to prosecute the work under this contract or any part thereof with such diligence as will insure it's completion within the period herein specified (or any duly authorized extension thereof) or shall fail to complete the work within said period.

e. The contractor shall fail to make due and proper payment to persons supplying labor and/or materials for the work under this contract.

f. The contractor shall fail or refuse to regard laws, ordinances or the instructions of the Agency Representative or otherwise be in substantial violation of any provisions of this contract, then the owner, without prejudice to any other rights or remedies it may have, may, with 7 days written notice to the contractor, terminate the employment of the contractor and his right to proceed and may take possession of the work under this contract and complete the work by contract or otherwise, as the owner may deem appropriate and expedient.

2. If the right of the contractor to proceed with the work is so terminated the owner may take possession of and utilize in completing the work under this contract such materials, appliances, supplies, plant and equipment as may be on the site of the work and necessary therefore.

END OF SECTION

COMPLIANCE WITH EXECUTIVE ORDERS

This contract is subject to the provisions of Executive Order No. Three of Governor Thomas J. Meskill promulgated June 16, 1971, and, as such, this contract may be cancelled, terminated or suspended by the State Labor Commissioner for violation of or non compliance with said Executive Order No. Three, or any state or federal law concerning nondiscrimination, notwithstanding, that the Labor Commissioner is not a party to this contract.

The parties to this contract, as part of the consideration hereof, agree that said Executive Order No. Three is incorporated herein by reference and made a part hereof. The parties agree to abide by said Executive order and agree that the State Labor Commission shall have continuing jurisdiction in respect to contract performance in regard to nondiscrimination, until the contract is completed or terminated prior to completion.

The contractor, agrees as part consideration hereof, that this contract is subject to the Guidelines and Rules issued by the State Labor Commissioner to implement Executive Order No. Three, and that he will not discriminate in his employment practices or policies, will file all reports as required, and will fully cooperate with the State of Connecticut and the State Labor Commissioner.

This contract is also subject to provisions of Executive Order No. Seventeen of Governor Thomas J. Meskill promulgated February 15, 1973, and, as such, this contract may be cancelled, terminated or suspended by the contracting agency or the State Labor Commissioner for violation of or noncompliance with said Executive Order No. Seventeen, notwithstanding that the Labor Commissioner may not be a party to this contract.

The parties to this contract, as part of the consideration hereof, agree that Executive Order No. Seventeen is incorporated herein by reference and made a part hereof. The parties agree to abide by said Executive Order and agree that the contracting agency and the State Labor Commissioner shall have joint and several continuing jurisdiction in respect to contract performance in regard to listing all employment openings with the Connecticut State Employment Service.

Executive Order No. 7C

This Contract is subject to **Executive Order No. 7C of Governor M. Jodi Rell, promulgated on July 13, 2006.** The Parties to this Contract, as part of the consideration hereof, agree that:

a. The State Contracting Standards Board ("Board") may review this contract and recommend to the state contracting agency termination of this contract for cause. The State contracting agency shall consider the recommendations and act as required or permitted in accordance with the contract and applicable law. The Board shall provide the results of its review, together with its recommendations, to the state contracting agency and any other affected party in accordance with the notice provisions in the contract not later than fifteen (15) days after the Board finalizes its recommendation. For the purposes of this Section, "for cause" means:

(1) a violation of the State Ethics Code (Chapter 10 of the general statutes) or section 4a-100 of the general statutes or

(2) wanton or reckless disregard of any state contracting and procurement process by any person substantially involved in such contract or state contracting agency.

b. For purposes of this Section, "contract" shall not include real property transactions involving less than a fee simple interest or financial assistance comprised of state or federal funds, the form of which may include but is not limited to grants, loans, loan guarantees, and participation interests in loans, equity investments and tax credit programs. Notwithstanding the foregoing, the Board shall not have any authority to recommend the termination of a contract for the sale or purchase of a fee simple interest in real property following transfer of title.

c. Notwithstanding the contract value listed in sections 4-250 and 4-252 of the Connecticut General Statutes and section 8 of Executive Order Number 1, all State Contracts between state agencies and private entities with a value of $50,000 (fifty thousand dollars) or more in a calendar or fiscal year shall comply with the gift and campaign contribution certification requirements of section 4-252 of the Connecticut General Statutes and section 8 of Executive Order Number 1. For purposes of this section, the term "certification" shall include the campaign contribution and annual gift affidavits required by section 8 of Executive Order Number 1.

Gas Fired Boiler Replacement
10 Woodbridge Ave. East Hartford

The work under this section consists of the furnishing of all plant, labor, materials, services and equipment to properly complete all item of work and described in the specifications, plans, or reasonably implied.

The nature of this project requires the work of various trades including but not limited to: Asbestos abatement, Plumbing, Electrical and related trades as may be required to complete the project. The Contractor shall provide the services of any and all trades as may be required to complete the work including a dumpster if needed. All such costs shall be included in the Contractor's bid.

I. **General Requirements**

A. Abatement of all Asbestos containing material in the Boiler room.

B. Remove and properly dispose of old boiler and auxiliary equipment as required to complete the project.

C. Furnish and install 2 packaged, modulating, sealed combustion, power-vented, high efficiency gas-fired boilers with cast aluminum heat exchangers that use outside air for combustion.

D. Install combustion venting and air supply piping in accordance with applicable codes and manufacturer's specifications and finish both interior and exterior walls to match existing condition.

E. Furnish and install new piping, pumps, valves, vents, and gauges to complete the project as per specifications.

F. Provide and install all safety devices as may be required for code compliance.

G. All work must be done in a neat and workmanlike manner.

H. All copper pipe joints shall be sweat; all others shall be screw, compression or flare. No "press on" fittings will be accepted.

I. Install packaged boiler units according to manufacturer's installation instructions. All work to be done in a neat and workmanlike manner.

J. Weil-McLain natural gas fired Ultra-310 Series 3 packaged boiler or equal as approved by the Plant Facilities Engineer.

K. Each boiler shall have I=B=R Hydronics Institute gross output at 100% fire rate 310 MBH per boiler.

L. Boilers shall be 92.8% minimum DOE efficient as required by National Energy Conservation Act or ASHRAE 90.1.

M. Boiler shall be capable of full modulation firing with a turn down of up to 5 to 1

N. ISO 9001 registered company to conform to Section IV of the ASME Boiler and Pressure Vessel Code shall manufacture boilers.

1. Individual cast aluminum mono block to be fire tested and hydrostatically pressure tested at factory in accordance with ASME requirements.

2. Maximum allowable working pressure 30 PSIG water as listed on the rating label.

O. Regulatory Requirements

1. Low Nox emission requirement of 40NG/J.
2. Boilers and controls to comply with applicable regulations.
3. Boilers shall meet U.S. Environmental Protection Agency and Department of Energy guidelines for "Energy Star" energy efficiency.

M. Re-insulation of all Boiler room piping with fiberglass insulation.

II. **Products**

A. Acceptable boiler manufacturers includes:

1. Weil-McLain, as specified in Part I, Paragraph C. or equal as approved by the Plant Facilities Engineer.
2. Taco, Circulating pumps, Flow-Checks, Air Scoops, Air Vents
3. Watts Feed Water and Back Flow Valves.
4. Honeywell "Sparco" Expansion Tank
5. Other manufacturers must comply with specifying engineer's requirements, including:
   (a) Full intent of these specifications, and
   (b) Provide complete submittal including literature, manuals, and wiring diagrams, fuel piping diagrams, and list of similar installations. The alternate must be of similar size and footprint, piping configuration, clearance requirements and heating surface. Submittal for substitutions must be presented to engineer at least fourteen (14) working days before bid opening for approval. Substitutions are **not** permitted after contract is awarded.

B. Boiler Construction

1. Boilers heat exchanger:
   (a) Cast aluminum mono block heat exchanger.
2. Boilers main components:
   (a) The combustion chamber will be sealed and located at the top of the mono block casting which will be of counter-flow design, to assure that sediment and any lime that might form will fall to the bottom, away from the crown sheet area.
   (b) Boilers shall be supplied with a gas valve designed with negative pressure regulation (fan suction "pulls" gas through valve rather than gas pressure "pushing" gas through valve). This enables the boiler to operate in a safe condition at a de-rated output, even if the inlet gas pressure should drop to as low as 4 inches W.C. The inlet (natural) (propane) gas pressure to the boiler gas valve should be a minimum of 4" W.C. and a maximum of 13" W.C. If inlet gas pressure exceeds 13" W.C., a 100% lock-up type gas pressure regulator of adequate size must be installed in gas supply piping and adjusted to prevent pressure in excess of 13" W.C.
   (c) The burner shall be premix combustion type, made with stainless steel and a woven metal fiber outer covering providing a wide range of modulating firing rates.
   (d) The boiler shall be equipped with a variable speed blower system, capable of modulating the boiler-firing rate.
   (e) The boiler shall be equipped with a device capable of controlling the air/fuel ratio through a 5 to 1 turndown ratio.
   (f) The boiler shall be equipped with an outdoor air reset control with priority for the domestic hot water system.

(g) The control system shall have an electronic display for boiler set-up, boiler status, and boiler diagnostics.

C. Venting and Combustion Air

1. Boilers must be capable of using outside air piped directly to boiler for combustion. Inlet and termination of these pipes must be connected to either, through the roof or sidewall terminations as recommended by the manufacture.
2. The boiler shall be direct vent using Schedule 40 PVC, ABS or CPVC.

D. Boiler Trim

1. All electrical components to be high quality manufacture and bear UL label.
2. Water boilers controls furnished:
   (a) High limit temperature control (190 degrees F maximum allowable boiler water temperature).
   (b) Combination pressure-temperature gauge. Gauge dial clearly marked and easy to read.
   (c) ASME certified pressure relief valve, set to relieve at 30 PSIG.
   (d) Flue gas, outlet water temperature, and return water temperature sensors.
   (e) Low water protection.
   (f) Built-in freeze protection.
   (g) 0011 Taco circulator.

E. Boiler Manuals

1. The boilers shall be provided with complete instruction manuals, including:
   (a) Boiler Installation Manual.
   (b) User's Manual.
   (c) Gas Conversion Supplement.
   (d) Venting Supplements and Instructions.

F. Acceptance

1. The contractor will be responsible to arrange for inspection by Hartford Steam Boiler with an Agency representative present.
2. The system must pass all inspections before final payment will be made.
3. Start up documentation and combustion test results must be submitted at project completion

END OF SECTION

Multiple Boiler Control System

General

Products

1. Weil-McLain BCP-3 or equal as approved by the Plant Facilities Engineer.
    a. Other manufacturers must comply with specifying engineer's requirements, including:
        i. Full intent of these specifications, and
        ii. Provide complete submittal including literature, manuals, and wiring diagrams, fuel piping diagrams, and list of similar installations. The alternate must be of similar size and footprint, piping configuration, clearance requirements and heating surface.
        iii. Submittal for substitutions must be presented to engineer at least fourteen (14) working days before bid opening for approval. Substitutions are **not** permitted after contract is awarded.

A. The Boiler Control Panel shall be equal to the U.L. Listed Weil-McLain BCP-3 as per above.

B. The control shall be capable of operating in the following modes:

- One lo/hi/lo boiler with a system pump
- Two on/off boilers with a system pump
- Three on/off boilers.

D. The control shall use PID type logic to bring on additional stages only as necessary.

E. Reaction Time:

Shall be adjustable from 0.5 to 8.0 minutes.

Shall control the minimum run time of any stage or boiler.

F. Heat Demand Function:

Will allow the BCP to be enabled or disabled from a remote location.

When the contacts are opened all stages that are energized shall immediately turn off.

G. The control shall have a digital display.

During normal operation the display shall show the actual temperature.

The display shall be able to show all other adjustable parameters and shall provide diagnostic code during troubleshooting.

H. The temperature display shall be adjustable to read in either ºFahrenheit or ºCelsius.

I. BCP Control shall allow the sensor(s) to be located up to 500' from the control module.

J. All system parameters and operating modes are stored permanently and maintain their value if power is lost.

K. The system pump shall be energized for 15 seconds every 7 days when the heating system is not active.

L. The control shall have an adjustable minimum water temperature.

M. For two and three boiler operation, the lead stage will rotate automatically every 24 hours promoting even wear on the stages.

N. The control shall have adjustable reaction time. (Prevents short cycling of boilers.)

J All settings and operating modes shall be stored permanently and maintain their value if power is lost.

K The control shall be designed to mount on a standard 4x4" electrical box.

L System water sensor, immersion well and outdoor sensor with mounting bracket are included with BCP-3.

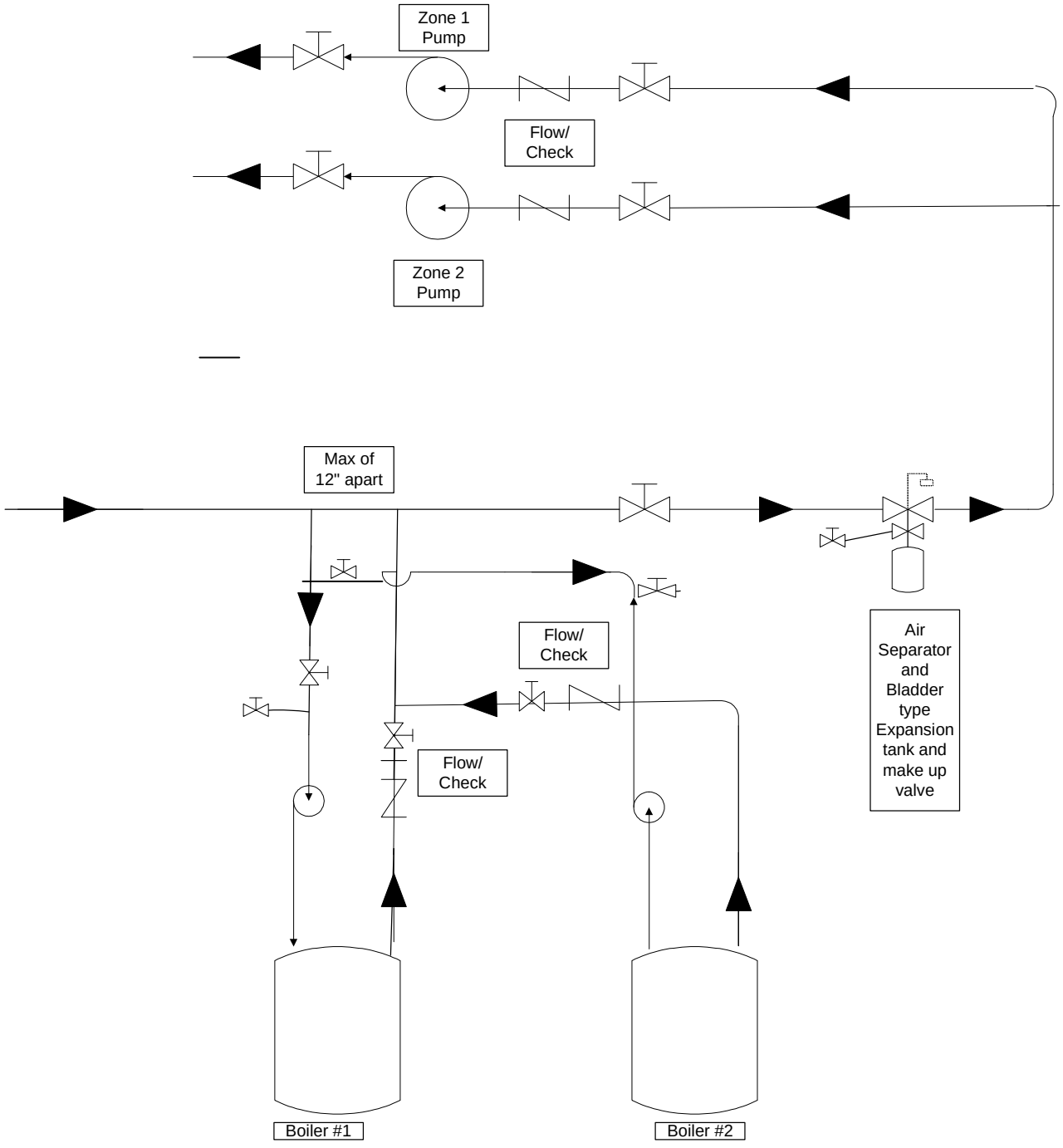
BCP-3 *Specifications . . .*

Input voltage ..... 120 VAC
Power consumption ..... 3 VA
Lead boiler rotation ..... Every 24 Hours
Output contacts ..... 3 SPST
Contact rating ..... 8A, 1/8 HP
Operating ambient temperature ..... 20 to 120ºF
Dimensions ..... 4" x 4" x 2 1/4" deep
Accuracy ..... ± 1ºF (1ºC)
Temperature display, selectable ..... ºF or ºC
Sensor range ..... -30 to 250ºF (-35 to 120ºC)
Ambient temperature range ..... 20 to 120ºF
Fine tune ..... -40 to 40ºF (-20 to 20ºC)
Outdoor starter ..... 40 to 100ºF (5 to 35ºC) or OFF
Reset ratio ..... 1:4 to 8:1
Minimum water temperature
default 140ºF (60ºC)
Adjustable ..... 110 to 180ºF (45 to 80ºC)
Heat input demand ..... Dry contact only

END OF SECTION

Basic Piping Diagram for Woodbridge Multiple Boiler Installation

Primary/Secondary Loop System



Condensing high-efficiency gas boiler 20-100% Modulation

Models	Ultra 80	Ultra 105	Ultra 155	Ultra 230	Ultra 310
	Part No.	Part No.	Part No.	Part No.	Part No.
Packaged Boiler					
Natural Gas	383-500-500	383-500-502	383-500-503	383-500-504	383-500-505
Propane Gas	383-500-501	383-500-502*	383-500-503*	383-500-504*	383-500-505*
Taco Pump	007	007	0014	0014	0014

*Natural Gas field convertible to LP as standard equipment except for the Ultra 80

Optional Equipment					
Wall Mounting Kit	389-900-180	389-900-180	389-900-180	389-900-180	389-900-180
LWCO (w/harness & test button)	511-100-005	511-100-005	511-100-005	511-100-005	511-100-005
Concentric Vent Kit	383-500-350	383-500-350	383-500-350	383-500-350	383-500-350
Indirect-Fired Water Heaters	Matching Ultra Plus 40, 60, 80, 100, 110, and 119 Water Heaters are available				

Ratings					
CSA Input (Maximum)	80 MBH	105 MBH	155 MBH	230 MBH	310 MBH
CSA Input (Minimum)	16 MBH	21 MBH	31 MBH	46 MBH	62 MBH
DOE Heating Cap.	71 MBH	94 MBH	139 MBH	207 MBH	*289 MBH
Net I=B=R	62 MBH	81 MBH	123 MBH	183 MBH	252 MBH
DOE AFUE	93.0%	92.0%	93.0%	92.8%	*93.3%

*Combustion Efficiency

Data					
Vent Size	2" or 3"	2" or 3"	3"	3" or 4"	4"
Vent Material	PVC/CPVC	PVC/CPVC	PVC/CPVC	PVC/CPVC	PVC/CPVC
Combustion Air Size	2" or 3"	2" or 3"	3"	3" or 4"	4"
Water Volume	.95 Gal.	1.07 Gal.	1.17 Gal.	1.57 Gal.	2.1 Gal.
Approx. Ship. Weight	199 lbs.	207 lbs.	234 lbs.	246 lbs.	297 lbs.

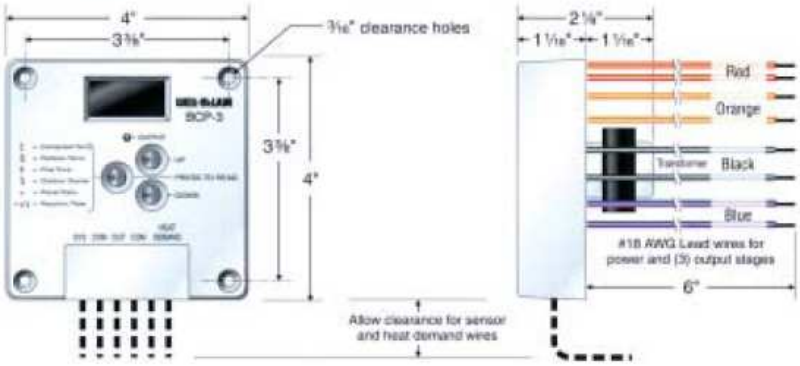
Dimensions					
Min. Recommended Pipe Size	1"	1"	1-1/4"	1-1/4"	1-1/2"
Supply Tappings	1"	1"	1"	1"	1-1/4"
Return Tappings	1"	1"	1"	1"	1-1/4"
Gas Connection Size	1/2"	1/2"	1/2"	1/2"	3/4"

Specifications

Input voltage	120 VAC/60 HZ/1-PHASE	Mounting	4 x 4 junction box (deep)
Power consumption	3 VA	Accuracy	± 1°F (± 1°C)
Output contacts	3 SPST isolated contacts	Sensor range	-30 to 250 °F (-35 to 120°C)
Contact rating	8 AMPS, 1/8 HP each	Sensor lead wire	105°C shielded x 14 feet
Maximum total output	15 AMPS	Maximum sensor wire extension	Extend up to 500 feet using 18-gauge shielded wire
Ambient temperature	20°F to 120°F		
Inputs	• System water temp • Outdoor temp • Heat demand (dry contact only)		
Display	Default display is system water temperature		

Programmable parameters	Default setting	Optional settings
Temperature display	°F	°C
Output mode	3 on/off boilers	2 on/off boilers and system pump 1 hi/lo boiler and system pump
Minimum water temperature	140°F	110 to 180°F (45 to 80°C) Can be adjusted lower than 140°F only if piping and controls provide minimum required return water temperature to boiler
Reset ratio	1 to 1	(12) selectable ratios, ranging from 8:1 to 1:4
Fine tune	0°F	-40°F to +40°F (-20°C to +20°C)
Outdoor starter temperature	60°F	40°F to 100°F (5°C to 35°C)
Reaction time	2 minutes	0.5 to 8.0 minutes

Dimensions



Equipment

Standard Equipment

- BCP-3 control module
- Water temperature sensor
- ½" NPT immersion well
- Outdoor temperature sensor
- Outdoor sensor mounting clip

Operation

General

- The BCP-3 control module provides 3 output stages for outdoor reset control of system water temperature. Output stages can sequence up to 3 boilers, or 2 boiler stages and system pump.
- The BCP-3 provides programmable parameters as listed in "Specifications" at left.
- Heat demand input allows the control to "go to sleep" until a call for heat from an external heat source, such as a thermostat.

PID control logic

- The BCP-3 uses PID control logic to constantly monitor and remember the difference between the setpoint and actual system water temperature. The microprocessor uses this information to determine if stages need to be turned "on" or "off" or stay as is. The advanced capabilities of the BCP-3 eliminate unnecessary boiler cycling. Result — your heating system will operate at peak efficiency.

Wiring — Outputs

Wires	Wire function when operating mode setting is:			
	b 1	b 2	b 3	b 4
	1 boiler + pump	2 boilers + pump	3 boilers	1 lo-hi-lo boiler + pump
Black	System pump	System pump	Boiler #3	System pump
Orange	Not used	Boiler #2	Boiler #2	Boiler hi fire
Red	Boiler #1	Boiler #1	Boiler #1	Boiler lo fire
Blue	120-VAC power input			

Wiring — Inputs

Sensors	• Do not route sensors in conduit with line voltage wiring. • Mount outdoor sensor in shaded area on north side of building, away from doors, windows, exhaust fans, vents and heat sources.
Heat demand	• Remove factory jumper and wire to **isolated** contact. BCP-3 will call for heat only when contact is closed.

In the interest of continual improvements in product and performance, Weil-McLain reserves the right to change specifications without notice.

WEIL-McLAIN

Locate our Sales Offices by visiting our website:
www.weil-mclain.com

Weil-McLain
500 Blaine Street
Michigan City, IN 46360-2388

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Form No. C-892(0801)

Submittal Data Information

101-2.1

Flo-Chek

Effective: May 1, 2000 **Supersedes:** June 1, 1981

Job: _____ Engineer: _____ Contractor: _____ Rep: _____

ITEM NO.	MODEL NO.	

Purpose

Taco Flo-Cheks are used in a forced hot water heating system to prevent "gravity" circulation during periods when the boiler is hot but the space heating zone is not wanted. This makes it possible for the use of the heating boiler to maintain domestic hot water year round. In systems with multiple circulator zones, Flo-Cheks allow heat to flow only into the zones that are calling for heat. Also, the thumb screw can be manually opened for gravity feed appplications if the main circulator stops operating.

Operation

Taco Flo-Cheks open automatically when the circulator starts running. When the room thermostat is satisfied and the circulator is stopped, the Flo-Cheks close immediately, preventing gravity circulation. Gravity circulation of water is induced by the difference in specific weight or density of the hot water in the vertical supply pipe and the cold water in the vertical return pipe. The lighter hot supply side water, which naturally wants to rise, is drawn up and around the system by the "pulling down" effect of the heavier cold water in the vertical return pipe. The amount of gravity circulation is dependent on the height of the system and the differential between the hot and cold temperatures. In systems with multiple zones, "ghost flow" may occur if a Flo-Chek is not installed on each zone. Ghost flow is induced when a circulator on one zone is running but is still able to bypass water through a zone that is not calling, due to a differential in piping resistance between the two zones.

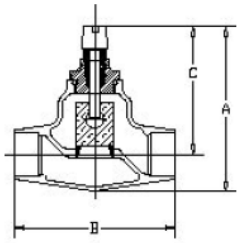
Size and Connections

Available in 3/4" and 1" bronze sweat in-line design or 3/4" - 2" cast iron universal threaded body design. The Taco MPV can be used for sizes above 2".

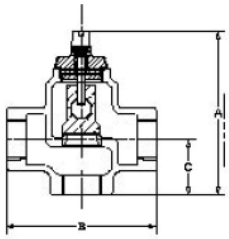
Ratings

Maximum Operating Pressure:
125 PSI (862 kPa)
Maximum Operating Temperature:
277°FF (136°C)
Media: Water or Water / Glycol

Sweat In-Line



Cast Iron Universal Threaded



Dimensions

Product Number	Size	Body	Type	Connections		Dimensions			Resistance in Feet Of Pipe Equivalent */Cv	Shipping Weight	
				Inlet	Outlet	A	B	C		Lbs.	Kg.
219	3/4"	Bronze	Horiz.	Sweat	Sweat	3 3/2	3 3/8	2 7/16	143 / 2.5	1.1	0.5
241	1"	Bronze	Horiz.	Sweat	Sweat	4 11/16	4 1/4	3 3/4	63.4 / 7.7	1.8	0.8
218	3/4"	C.I.	Univ.	NPT	NPT	4 29/32	3 29/32	1 7/16	35.8 / 5	1.1	0.5
220	1"	C.I.	Univ.	NPT	NPT	5	4 1/4	1 9/16	83.7 / 6.7	3	1.4
221	1 1/4"	C.I.	Univ.	NPT	NPT	5 11/16	4 3/4	2	47.8 / 17	4.8	2.2
222	1 1/2"	C.I.	Univ.	NPT	NPT	6 13/32	6	2 3/8	57.9 / 23.5	7.8	3.5
223	2"	C.I.	Univ.	NPT	NPT	7	6 3/4	2 5/8	61.8 / 43.8	10.3	4.7

*Data shown is based on flow rates @ 4 ft/sec velocity

Do it Once. Do it Right.

Taco, Inc., 1160 Cranston Street, Cranston, RI 02920 Telephone: (401) 942-8000 Fax: (401) 942-2360
Taco (Canada), Ltd., 6180 Ordan Drive, Mississauga, Ontario L5T 2B3 Telephone: (905) 564-9422 Fax: (905) 564-9436

Visit our website at: www.taco-hvac.com

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Submittal Data Information

101-007

Air Scoop

Effective: July 23, 2007 **Supersedes:** March 1, 2007

JOB _____ ENGINEER _____ CONTRACTOR _____ REP. _____

ITEM	QUANTITY	MODEL NUMBER	SIZE

Purpose

The Taco Air Scoop® is specifically designed to provide a noiseless, air-free hydronic heating, cooling or combination system, by efficiently separating out the air from the water in any of these systems.

Operation

Air being lighter than water, it travels along the upper portion of a horizontal pipe in low velocity hydronic systems. As the air and water enter the Air Scoop their velocity decreases, permitting the air bubbles to be scooped up by the baffle and directed to the top of the chamber. The air reaching the top of the air scoop is either immediately vented through a Hy-Vent® or it moves into a conventional plain steel expansion tank (models 433, 434, 435, 436, and 437), if used. Should the air completely fill the plain steel tank and back down into the Air Scoop, the excess will be removed by the Hy-Vent without disturbing the operation of the system.

Size and Connections

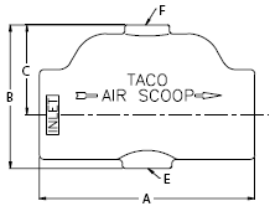
Taco Air Scoops are available in 1" through 3" cast iron threaded and 4" flanged cast iron. Each Air Scoop has an 1/8" vent connection on top for the installation of a Taco 400-3 or 416-1 Hy-Vent, and a 1/2" bottom tapping for a diaphragm expansion tank. The 1 1/2" through 4" Air Scoops also have an additional top tapping for the connection of a plain steel expansion tank.

Features

- One Piece Cast Iron Construction
- Engineered Baffle to Separate Air from Water
- Never Requires any Servicing

Ratings

Maximum Operating Pressure: 125 PSI (862kPa)
Maximum Operating Temperature: 300°F (135°C)
Media: Water or Water / Glycol
Recommended Flow Rate: 4 ft. / sec.
Maximum Flow Rate: 8 ft. / sec.



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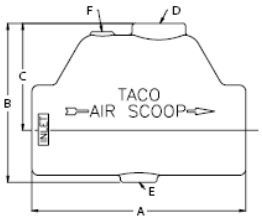
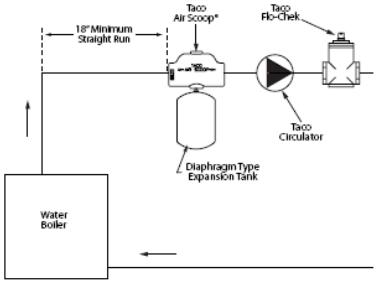


433, 434, 435, 436, 437



Dimensions & Weights

Product Number	Size	A	B	C	D	E	F	Cv	Weight Lbs.	Weight Kg
431	1"	6"	4"	2 1/2"	**	1/2" NPT	1/8" NPT	31.4	4	1.8
432	1 1/4"	6"	4"	2 1/2"	**	1/2" NPT	1/8" NPT	53.5	4	1.8
433	1 1/2"	8"	6"	4"	3/4" NPT	1/2" NPT	1/8" NPT	61	7	3.2
434	2"	8"	6"	4"	3/4" NPT	1/2" NPT	1/8" NPT	106.6	7	3.2
435	2 1/2"	10"	8"	5 1/2"	1" NPT	1/2" NPT	1/8" NPT	140	15	6.8
436	3"	10"	8"	5 1/2"	1 1/4" NPT	1/2" NPT	1/8" NPT	276	14	6.4
437*	4"	16 5/16"	11 5/8"	7 1/8"	1 1/2" NPT	1/2" NPT	1/8" NPT	600	52	23.6

*This size has 125 lb. flanged ends
**No conventional plain steel expansion tank tapping

Do it Once. Do it Right.®

TACO INC., 1160 Cranston Street, Cranston, RI 02920 Telephone: (401) 942-8000 Fax: 942-2360
TACO (Canada), Ltd., 6180 Ordan Drive, Mississauga, Ontario L5T 2B3 Telephone: (905) 564-9422 Fax: (905) 564-9436
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Submittal Data Information

101-2.3

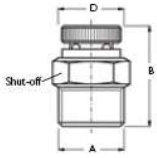
Automatic Air Vents

Effective: August 8, 2007 **Supersedes:** April 15, 2004

Job: _____ Engineer: _____ Contractor: _____ Rep: _____

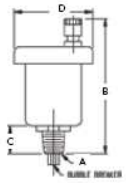
ITEM NO.	MODEL NO.	

417 Coin Vent



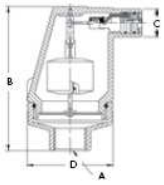
Installed on water or stream radiators the Taco automatic coin vent is the ideal air purging device. The coin vent features special hygroscopic cellulose discs in the valve body. When dry the discs allow air to be released from the system. Once all the air is purged the discs would then come in contact with system water, where upon they would swell to create a positive shut-off. This continuous cycle prevents the radiators from becoming air bound and speeds the process of filling the system. The vent can also be manually shut-off by means of an internal ball check. The 417 coin vent is suitable for use in water and low pressure steam applications.

Hy-Vent®



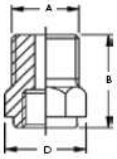
The Taco Hy-Vent® has become the industry standard for dependable long life service. Available in 1/8", 1/4" and 1/2" x 3/4" threaded connections, the high capacity float style vents can be placed either on the boiler or at the high points throughout the system. Now with operating pressure ratings of up to 250 psi, the brass body, nickel plated vents meet the system requirements of even the largest installation. The vents are also easily serviceable if needed, by just unscrewing the vent cap.

409 Vent



The Taco 409 air vent is a heavy duty brass vent rated to 150 psi system operating pressure. The conical shape of the vent significantly increases the clearance between the water level and internal mechanisms, reducing the potential that dirt floating on the top of the water could foul the venting operation. It features a convenient outlet connection for a 3/4" ID flex tube waste connection. It's high capacity design makes it ideal for placement throughout commercial systems.

Hy-Vent® Waste Connector



The Hy-Vent® Waste Connector screws onto the outlet connection of the Hy-Vents (models 400, 426, 418) to provide a worry-free installation. The 1/4" threads easily connect to a waste line, preventing water damage if the vent ever leaks.

Dimensions

Product Number	Description	A	B	C	D	Bubble Breaker	Quantity Per Box	Max. System Conditions	Max. Venting Pressure
417	Taco-Vent® Coin Vent	1/8" NPT	1"	----	35/64"	No	12	125 psi, 240°F *	125 psi
400	Hy-Vent®	1/8" NPT	3 3/16"	13/32"	1 13/16"	Yes	1	150 psi, 240°F	50 psi
416	Slim-Line Hy-Vent®	1/8" NPT	3 1/8"	13/32"	1 1/2"	Yes	14	150 psi, 240°F	115 psi
426	Hy-Vent®	1/4" NPT	3 3/16"	13/32"	1 13/16"	Yes	1	150 psi, 240°F	50 psi
418	Hy-Vent®	1/2" x 3/4" NPT	3 11/32"	17/32"	1 13/16"	No	1	150 psi, 240°F	50 psi
419	High Pressure Hy-Vent®	1/2" x 3/4" NPT	3 1/2"	17/32"	1 13/16"	No	1	250 psi, 240°F	150 psi
409	Commercially Rated Brass Vent**	3/4" NPT	4 3/4"	**	2 13/16"	No	1	150 psi, 240°F	150 psi
414	Waste Connector	1/4" NPT	3/4"	----	5/8"	----	1	150 psi, 240°F	----

* Suitable for use in low pressure steam systems.
** Outlet connection fits 3/4" ID Flex tubing.

Do it Once. Do it Right.®

TACO INC., 1160 Cranston Street, Cranston, RI 02920 Telephone: (401) 942-8000 Fax: 942-2360
TACO (Canada), Ltd., 6180 Ordan Drive, Mississauga, Ontario L5T 2B3 Telephone: (905) 564-9422 Fax: (905) 564-9436
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For Residential and Commercial Applications

Job Name _____ Contractor _____

Job Location _____ Approval _____

Engineer _____ Contractor's P.O. No. _____

Approval _____ Representative _____

Series 911

Combination Fill Valve and Backflow Preventer

Size: ½" (15mm)

Series 911 combination fill valve and backflow preventer consists of a Model 9D backflow preventer and Model 1156F feed water pressure regulator in one pre-assembled unit. This valve is designed for use on boiler feed lines to provide make-up water to the boiler and prevent backflow when supply pressure fails below system pressure.

911

Features

- Pre-assembled for ease of installation
- Easy service accessibility
- High capacity fill valve for quick system filling and purging

Models

911 – union NPT x NPT connections
911S – union solder x NPT connections
B911 – all bronze body construction union NPT x NPT connections
B911S – all bronze body construction union solder x NPT connections

Specifications

A combination fill valve and backflow preventer shall be installed on the boiler feed line to provide make-up water to the boiler. The valve shall contain a Watts Regulator Model 9D backflow preventer and Model 1156 feed water pressure regulator. The combination fill valve and backflow preventer shall be a Watts Regulator Company Series 911.

Pressure – Temperature

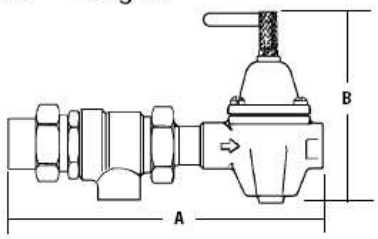
Maximum Temperature: 212°F (100°C)
Maximum Working Pressure: 100psi (6.9 bars)
Adjustment Range: 10-25psi (68.7 – 172.4 kPa) set at 15psi (103.4 kPa)

Options

add suffix:
S – ½" (15mm) union solder inlet x ½" (15mm) threaded outlet

add prefix:
B – bronze body regulator

Dimensions — Weights



MODEL	SIZE (DN)		DIMENSIONS				WEIGHT	
			A		B			
	in.	mm	in.	mm	in.	mm	lbs.	kgs.
911	½	15	8½	216	5¼	133	4.2	1.9
911S	½	15	8½	216	5¼	133	4.2	1.9
B911	½	15	8½	216	5¼	133	4.2	1.9
B911S	½	15	8½	216	5¼	133	4.2	1.9

USA: 815 Chestnut St., No. Andover, MA 01845-6098; www.wattsreg.com
Canada: 5435 North Service Rd., Burlington, ONT L7L 5H7; www.wattscda.com

ISO 9001 CERTIFIED

WATTS® REGULATOR

Watts product specifications in U.S. customary units and metric are approximate and are provided for reference only. For precise measurements, please contact Watts Technical Service. Watts reserves the right to change or modify product design, construction, specifications, or materials without prior notice and without incurring any obligation to make such changes and modifications on Watts products previously or subsequently sold.

ES-911 0329
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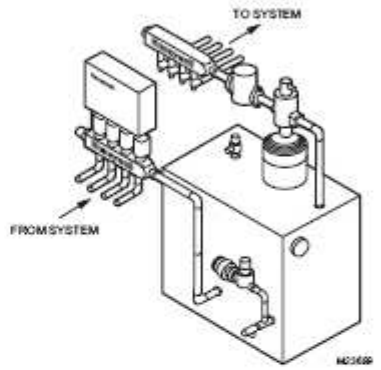
Honeywell

Closed Heating System Tanks, Diaphragm Expansion Tanks

TK300 AND XPS SERIES

PRODUCT DATA



APPLICATION

The Honeywell diaphragm expansion tank is designed to provide for the expansion of water in a closed hot water heating or solar system. Maximum operating temperature is 240° F (116° C); maximum operating pressure is 100 psi (689 kPa). The tank is precharged at 12 psi (83 kPa). The diaphragm separates the air cushion from the water and prevents absorption of the air cushion by water, thus avoiding water logging. The Honeywell expansion tank maintains pressure in the system and utilizes the smallest possible space.

INSTALLATION

Honeywell recommends installing the expansion tank by screwing it into the 1/2 in. connection on the bottom of a Honeywell Air Eliminator or Air purger located on the main hot water supply pipe close to the boiler. The installation of a Honeywell Air Eliminator assures automatic removal of all air and microbubbles from the system. However, the Honeywell expansion tanks may also be screwed into any convenient connection. The tank should be installed in a vertical position. Series XPS tanks are provided with a stand for floor mounting. Pipe the tank connection to the inlet side of the circulating pump.

Contents

Application 1
Installation 1
Operation 2
Service 2
Ordering Information 2

62-3050

OPERATION

After the Honeywell expansion tank is installed on the system, fill the system and establish circulation, the Honeywell Air Eliminator will automatically vent the air from the system. Operate the boiler to bring the system temperature up to the high-limit shut-off temperature, observe the system pressure to assure that it does not exceed the relief valve setting. If the system pressure is too high, reduce to the desired pressure by drawing a small amount of water from the system or by installing the next larger Honeywell expansion tank. Do not release air from the tank. Air charge in tank should equal the setting of the reducing valve, 12 psi (83 kPa) standard.

SERVICE

If the system pressure is too high, check the pressure reducing valve (fill valve) for a malfunction (i.e. dirt on the valve seat). Check to see if the Honeywell expansion tank has lost air by reducing the system pressure to zero and reading the tank pressure with a tire gage. Check for possible tankless heater leak by shutting off water supply to fill valve, reducing system pressure and observing pressure increase which would indicate a leak. If the relief valve drips water after excess system pressure condition has been corrected, flush relief valve by quickly raising the lever several times. If dipping continues after flushing replace relief valve.

Product Number	Total Volume in Gal. (liter)	Maximum Accepted Volume in Gal. (liter)	Diameter in inches (mm)	Length in inches (mm)	Connection Size
TK300-15	2.0 (7.6)	1.0 (3.8)	8 (203)	12 5/8 (321)	1/2" M
TK300-30	4.4 (16.7)	2.5 (9.5)	11 (279)	15 1/2 (394)	1/2" M
TK300-60	7.6 (28.7)	2.5 (9.5)	11 (279)	23 (584)	1/2" M
TK300-90	14 (53.0)	11.5 (43.5)	15 3/8 (391)	21 (533)	1/2" M
XPS-030V	14 (53.0)	11.3 (42.8)	15 3/8 (391)	23 7/8 (606)	1" F
XPS-040V	20 (75.7)	11.3 (42.8)	15 3/8 (391)	31 5/8 (803)	1" F
XPS-060V	32 (121.1)	11.3 (42.8)	15 3/8 (391)	46 1/2 (1181)	1" F
XPS-090V	44 (166.6)	34 (128.7)	22 (559)	36 (914)	1 1/4" F
XPS-110V	62 (234.7)	34 (128.7)	22 (559)	46 3/4 (1187)	1 1/4" F
XPS-160	86 (325.5)	46 (174.1)	26 (660)	47 1/4 (1200)	1 1/4" F
Connections: M = male NPT; F = female NPT					

ORDERING INFORMATION

When purchasing replacement and modernization products from your TRADELINE® wholesaler or distributor, refer to the TRADELINE® Catalog or price sheets for complete ordering number.

If you have additional questions, need further information, or would like to comment on our products or services, please write or phone:

1. Your local Honeywell Automation and Control Products Sales Office (check white pages of your phone directory).
2. Honeywell Customer Care
   1885 Douglas Drive North
   Minneapolis, Minnesota 55422-4386

In Canada—Honeywell Limited/Honeywell Limitée, 35 Dynamic Drive, Toronto, Ontario M1V 4Z9.
International Sales and Service Offices in all principal cities of the world. Manufacturing in Australia, Canada, Finland, France, Germany, Japan, Mexico, Netherlands, Spain, Taiwan, United Kingdom, U.S.A.

Automation and Control Solutions

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1985 Douglas Drive North
Golden Valley, MN 55422
customer.honeywell.com

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35 Dynamic Drive
Toronto, Ontario M1V 4Z9

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